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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/644,136	08/22/2000	Ioana M. Danciu	07844-423001/P387	9363

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EXAMINER

YANG, RYAN R

ART UNIT	PAPER NUMBER
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2672

DATE MAILED: 09/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/644,136

Applicant(s)

DANCIU, IOANA M.

Examiner

Ryan R Yang

Art Unit

2672

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 January 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 and 7-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 7-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other:

DETAILED ACTION

1. This action is responsive to communications: Amendment, filed on 7/1/2004. This action is non-final.
2. Claims 1-3 and 6-18 are pending in the case. Claims 1, 8-9 and 18 are independent claims. In the Amendment, filed on 7/1/2004, claims 1, 8 were amended, and claims 4 and 5 were canceled.
3. The title of this application is "Selecting Rendering Intents", as filed originally.

Claim Rejections - 35 USC § 102

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
5. Claims 9-10, 12-13 and 18 are rejected under 35 U.S.C. 102(b) as being anticipated by Usami (5,748,342).
6. As per claims 9 and 18, Usami discloses a computer implemented method or computer program product for selecting a rendering intent, the method comprising:
receiving a source color image having colors within a source color gamut (Figure 20 original);
receiving a plurality of rendering intents, wherein each rendering intent defines a mapping of colors from the source color gamut to a destination color gamut (Figure 1B 10 "a hard disk, which is used to store color reproduction range data of the printers 7 to 9 and the monitor, a **profile including programs** including a color space compression

algorithm", column 3, line 53-56, wherein the profile including programs is the rendering intent);

generating a plurality of rendered images by rendering the received image according to the plurality of rendering intents (Figure 20 the three preview images were generated);

simultaneously previewing a plurality of difference images, wherein each difference image is generated from one of plurality of rendered images and a reference image (Figure 20 where the three preview images are simultaneously displayed and the algorithm generated images are the difference images, the original image is reference image); and

selecting a rendering intent by receiving from a user a selected image from the plurality of simultaneously previewed difference (Figure 1B 12 "Reference numeral 12 denotes an operating unit, which is used by the user to select a desired process", column 3, line 64-65).

7. As per dependent claim 10, Usami demonstrated all the elements as applied to the rejection of independent claim 9, supra, and further discloses simultaneously previewing a plurality of rendered image comprises simultaneously displaying them on a monitor (Figure 20).

8. As per claim 12, Usami demonstrated all the elements as applied to the rejection of independent claim 9, supra, and further discloses the reference image is another rendered image (Figure 20 Preview Image No Color Space Compression).

9. As per claim 13, Usami demonstrated all the elements as applied to the rejection of independent claim 9, supra, and further discloses the reference image is the source color image (Figure 20 Original).

Claim Rejections - 35 USC § 103

10. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

11. Claims 1-3, 6 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Usami (5,748,342) and further in view of Nakajima (6,701,011).

As per claims 1 and 8, Usami discloses a computer implemented method or computer program product for selecting a rendering intent, the method comprising:

receiving a source color image having colors within a source color gamut (Figure 20 original);

receiving a plurality of rendering intents, wherein each rendering intent defines a mapping of colors from the source color gamut to a destination color gamut (Figure 1B 10 "a hard disk, which is used to store color reproduction range data of the printers 7 to 9 and the monitor, a profile including programs including a color space compression algorithm", column 3, line 53-56, where the profile including programs is the rendering intent);

generating a plurality of rendered images by rendering the source image using the plurality of rendering intents (Figure 20 the three preview images were generated).

Usami discloses a computer implemented method or computer program product for selecting a rendering intent. It is noted that Usami does not explicitly disclose:

receiving input selecting a contrast mode from a plurality of contrast modes, wherein each contrast mode specifies a way to simultaneously compare the plurality of rendered images; simultaneously previewing a plurality of rendered images according to the selected contrast mode; and selecting a rendering intent by receiving from a user a selected image from the plurality of rendered images simultaneously previewed images according to the selected contrast mode.

However, this is known in the art as taught by Nakajima. Nakajima discloses a method of image process in which a contrast mode from a plurality of contrast mode is selected (Figure 21; "the image rendering module reduces the image data and reproduces an image of the reduced data while the color processing parameter switch means switches one of the color processing parameters of "tint" and "value/contrast" selected by the color processing parameter selector constituting the setting section", column 13, line 37-43, where the contrast can be set to a plurality of values; "The user makes adjustment watching an unadjusted original image 153 and a current image 154 of comparison", column 18, line 5-7).

Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Nakajima into Usama because Usama discloses a method of generating image from rendering intent and Nakajima discloses the rendered images can be compared and rendering intent can be adjusted in order to help the user easily selecting the rendering setting.

12. As per dependent claim 2, Usami and Nakajima demonstrated all the elements as applied to the rejection of independent claim 1, supra, and Usami further discloses the rendered images are contrasted by simultaneously previewing them as a plurality of rendered images (Figure 20).

13. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Usami and Nakajima as applied to claim 1 above, and further in view of Inoue et al. (5,844,542).

As per dependent claim 3, Usami and Nakajima demonstrated all the elements as applied to the rejection of independent claim 1, supra.

Usami and Nakajima disclose a method of selecting a rendering intent. It is noted that Usami does not explicitly disclose "the rendered images are contrasted by simultaneously previewing them as a plurality of rendered differences", however, this is known in the art as taught by Inoue et al., hereinafter Inoue. Inoue discloses an image processing method in which "image adjustment on the original image data based on an image adjustment level deviated from that of the first image adjustment by a given level difference ...", column 2, line 58- column 3, line 3).

Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Inoue into Usami and Nakajima because Usami and Nakajima disclose a method of selecting a rendering intent and Inoue disclose the image difference can be simultaneously display in order to make color adjustment more efficiently.

14. As per dependent claim 6, Usami and Nakajima demonstrated all the elements as applied to the rejection of independent claim 1, *supra*, and Usami further discloses simultaneously previewing a plurality of rendered image comprises simultaneously displaying them on a monitor (Figure 20).

15. Claims 7 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Usami and Nakajima as applied to claim 1 above.

As per claims 7 and 11, Usami and Nakajima demonstrated all the elements as applied to the rejection of independent claims 1 and 9, *supra*, respectively, and Nakajima further discloses simultaneously previewing a plurality of rendered images comprises printing them on a single sheet of paper (Figure 1- 3).

Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Nakajima into Usama because Usama discloses a method of generating image from rendering intent and Nakajima discloses the rendered images can be compared and rendering intent can be adjusted in order to help the user easily selecting the rendering setting.

16. Claims 14 and 15 rejected under 35 U.S.C. 103(a) as being unpatentable over Usami as applied to claim 9 above, and further in view of Urbano et al. (6,004,270).

As per dependent claim 14, Usami demonstrated all the elements as applied to the rejection of independent claim 9, *supra*.

Usami discloses a method of selecting a rendering intent. It is noted that Usami does not explicitly disclose a difference image is obtained by subtracting the reference image from a rendered image, however, this is known in the art as taught by Urbano et

al., hereinafter Urbano. Urbano discloses an image processing method in which the difference image is by performing subtraction of two images (column 1, line 31-32).

Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Urbano into Usami because Usami discloses a method for selecting rendered image and Urbano discloses the rendered image can be processed to display difference image in order to improve alignment process.

17. As per dependent claim 15, Usami and Urbano demonstrated all the elements as applied to the rejection of independent claim 9, *supra*, and Urbano further discloses a difference image is obtained by subtracting the reference image from a rendered image (col. 1, line 31-32).

Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Urbano into Usami because Usami discloses a method for selecting rendering intent and Urbano discloses the rendered image can be processed to display difference image in order to improve alignment process.

As for a difference image is obtained by calculating the least squares difference between a rendered image and the reference image, since least squares difference is a notoriously well known method in calculating difference between two image, it would have been obvious to one of skill in the art to include obtaining a difference image by calculating the least squares difference between a rendered image in order to approximate color changes to find the best optimization.

18. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Usami and further in view of Williams et al. (6,508,812).

As per dependent claim 16, Usami demonstrated all the elements as applied to the rejection of independent claim 9, *supra*.

Usami discloses a computer implemented method or computer program product for selecting a rendering intent. It is noted that Usami does not explicitly disclose a difference image is obtained by representing the differences between a rendered image and the reference image as a topographical map, however, this is known in the art as taught by Williams et al, hereinafter Williams. Williams discloses a method of representing difference image in the form of topological contouring ("The topographer generates a Pixmap image of corneal height data at each pixel of the image", column 15, line 17-19; "Based upon the actual topography of the cornea, an "ideal" topographical profile is generated", column 15, line 21-22; "The difference between the actual profile and ideal profile is then calculated at 320 to produce a difference profile", column 15, line 24-26, where the actual profile is considered reference image and the ideal profile is considered rendered image).

Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Williams into Usami because Usami discloses a method of implementing rendering intent by comparing a plurality of resultant images and Williams discloses the comparison can be presented as difference image and can be a topographical image in order to provide better contrast.

19. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Usami in view of Williams et al. (6,508,812), and further in view of Gersten (5,384,608).

As per dependent claim 17, Usami and Williams demonstrated all the elements as applied to the rejection of dependent claim 16, supra.

Usami and Williams disclose a method of implementing rendering intent by observing image difference represented as topological map. It is noted Usami and Williams do not disclose the topological image can be color, however, this is known in the art as taught by Gersten. Gersten discloses a method of displaying topographical data using color code (see Abstract).

Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Gersten into Usami and Williams because Usami and Williams disclose a method of implementing rendering intent by observing image difference represented as topological map and Gersten disclose the topographical image can be color coded in order to provide better contrast.

Response to Arguments

20. Applicant's arguments with respect to claims 1-3, 6-8 and 16 and 17 have been considered but are moot in view of the new ground(s) of rejection.

As per claims 9 and 18, applicant alleges Usami does not disclose "previewing a plurality of difference images". In reply, examiner a plurality of images presented in figure 20 are different from each other, therefore constitutes difference images.

As per claims 14 and 15, in response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, difference images are generated and compared in order to improve alignment process of contrast images.

Conclusion

21. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Inquiries

22. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Ryan Yang** whose telephone number is **(703) 308-6133**.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Michael Razavi**, can be reached at **(703) 305-4713**.

Any response to this action should be mailed to:

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Art Unit: 2672

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Commissioner of Patents and Trademarks


Washington, D.C. 20231

or faxed to:

(703) 872-9314 (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 305-47000377.


Ryan Yang
9/16/2004